

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-28. (Canceled)

29. (Currently Amended) A method of producing a material for use as a filter to purify sewage, the method comprising:

a)——providing pre-sorted plastic material wastes comprising substantially polyethylene or polypropylene;

b)——adding between about 0.01% and 5% by weight of a solid peroxide, with respect to the total weight of the plastic material, to the pre-sorted plastic material wastes;

crosslinking the pre-sorted plastic material wastes in the presence of the peroxide to provide a substantially homogeneous plastic material; and

e)——forming the substantially homogeneous plastic material wastes into a granular material.

30-44. (Canceled)

45. (Currently Amended) A method of producing a material for use as a filter to purify sewage, the method comprising:

a)——providing pre-sorted plastic material wastes comprising substantially polyethylene or polypropylene;

b)——adding between about 0.1% and 0.5% by weight of a solid peroxide, with respect to the total weight of the plastic material, to the pre-sorted plastic material wastes;

crosslinking the pre-sorted plastic material wastes in the presence of the peroxide to provide a substantially homogeneous plastic material; and

e) —forming the substantially homogeneous plastic material wastes into a granular material.

46. (Canceled)

47. (Previously Presented) The method as set forth in claim 29 wherein the peroxide added to the plastic material wastes is in ground form.

48-59. (Canceled)

60. (Previously Presented) The method of claim 45 wherein the peroxide added to the plastic material wastes is in ground form.

61. (Previously Presented) The method of claim 29 wherein the peroxide is provided by peroxide-bearing waste.

62. (Previously Presented) The method of claim 45 wherein the peroxide is provided by peroxide-bearing waste.

63. (New) The method of claim 29 wherein the peroxide is dicumyl peroxide.

64. (New) The method of claim 45 wherein the peroxide is dicumyl peroxide.

65. (New) The method of claim 29 wherein the step of crosslinking including heating a mixture of the pre-sorted plastic waste materials and the peroxide.

66. (New) The method of claim 45 wherein the step of crosslinking including heating a mixture of the pre-sorted plastic waste materials and the peroxide.